

ARGUMENTS/REMARKS

Response to Objections

Objections to claims 1, 8 and 9 have all been cured as indicated in the amendments above. Accordingly, withdrawal of the objections is respectfully requested.

Response to Rejections

The claims have been amended as indicated above. Claims 1-14 remain for consideration. Claims 1 and 8 are independent method claims, from which the remainder of the claims depend.

Reconsideration is respectfully requested of the rejection of the pending claims under 35 U.S.C. §103(a) as unpatentable over Wiedeman (Wiedeman et al. U.S. Patent 6,654,347) in view of Amalfitano (Amalfitano et al. U.S. Patent 5,303,166).

Wiedeman shows a system used in a manufacturing process for testing custom configurations for new computer systems (Systems Under Test or SUTs) that have been manufactured for one customer in isolation from testing of computers manufactured for other customers by establishing, in the manufacturer's network, dynamic VLAN connections to create a VPN so that testing and interconnection of the one customer's computers will not share testing information or software with any other customer's computers. This is important where custom configurations to be installed and tested contain confidential customer data or require a software configuration (e.g., DHCP) that would normally interact with other computers being tested (see col. 1 lines 38-54).

In Wiedeman, the VPN that is created exists solely for the purpose of the manufacturer's testing of new computers and is not used by the customer for its regular data communication needs. Thus the manufacturer's VPN network data-carrying performance characteristics such as throughput would not be of interest to the customer, and the data carrying performance of the VPN with one access arrangement (e.g., DSL over ISP) vis-à-vis other different network access arrangements (e.g., T1 line), and

possible improvements to the VPN as a result of such comparisons, are neither of consequence to the customer nor a subject or goal of Weideman's testing.

Wiedeman discloses the connection of the manufacturer's network to the customer's VPN, but as col. 10 lines 5-28 indicate, the purpose of this connection is to "enable the manufacturer to perform custom configuration of all SUTs for a given customer and to provide 'network-in-a-can' solutions to customers. To this end, the customer has several options as to how to provide to the manufacturer the information needed to perform the custom configuration." (col. 10 lines 6-11)

The tests performed by Wiedeman are not disclosed in detail, but presumably are tests of the hardware and software configurations for a custom configuration for a customer. There is no suggestion whatever in Wiedeman that any testing of network performance of a customer's VPN takes place. Moreover, there is no suggestion in Wiedeman of comparing any test results of a SUT either with another SUT or a benchmark of VPN performance when connected to a different system.

In contrast, applicant's invention is a method, as stated in claim 1, for evaluating the performance of a customer's virtual private network (VPN) network access arrangements from an alternate access connection (such as through an ISP). The method downloads a test through a network backbone to a network that will produce the VPN for a user to simulate interactions with the VPN and the alternate access connection, and test the data-carrying performance of the VPN with respect to the alternate access connection. The test results are compared to benchmarks for the test as run on a different set of access connections (as described in the specification, these benchmarks can be standard leased line connections such as 56Kbit, 512 Kbit and T1 line access). The results of the comparison are reported to providers of the VPN to customers. Thus, as stated in the specification at page 3 lines 6-11, "Advantageously, the inventive methods allow VPN managers and service providers to assess the performance of a customer's VPN before the VPN is created, thereby allowing the VPN provider to predict the VPN's performance given the network connections that will come into play, and to adjust the network

connections. This also allows the VPN provider to advise the customer of the better or best access connections to use.” (See claims 6 and 14.)

The method also allows customer’s already created and existing VPNs to be tested over a period of time (FIG. 5) to see if performance varies as a result of use of an alternative access arrangement. (See claims 4 and 11.) Dependent claim 3 provides that the results of the comparison are provided to customers, and claim 4 specifies that the VPN has been created and is being used by customers and is retested to characterize raw throughput of data. Claim 5 provides that the benchmarks are provided by leased line connections, and claim 7 provides the further step of improving access to the VPN for customers based on the comparison.

Claim 8, the second independent claim, describes a method for improving access to a VPN by simulating interactions with the VPN from access by an alternate access connection (e.g., an ISP) through a network that will produce the VPN, testing the data-carrying performance of the VPN with the alternate access connection, comparing the results of the test with a benchmark for the test that would have connected to the VPN through a different access connection, and adjusting access to the VPN as a result of the comparisons made. Dependent claims 9-14 are similar to the claims dependent on claim 1 described above.

Accordingly, Wiedeman does not disclose or suggest the subject of applicant’s claims because it does not disclose either the purpose or the methods for testing the data-carrying capabilities of a VPN with an alternative access connection as benchmarked against results from different access connections and providing results of the tests to the provider of the VPN.

Amalfitano, cited to supply a disclosure of benchmark testing missing in Wiedeman, addresses the need for “performing a benchmark performance analysis in a data processing network which accurately emulates the input/output characteristics of one or more specific software applications without requiring actual installation and execution of those applications.” (col. 2 lines 22-27) Amalfitano’s solution is to find representative

transactions within selected software applications generally utilized within a network, and to use a record of input/output operations for these transactions to create a benchmark script for subsequent use in performance testing to have a “high degree of verisimilitude when compared with actual software application operations.” (col. 2 lines 60-61) Even though Amalfitano discloses benchmark testing in the context of a LAN network, Amalfitano does not supply the features of applicant’s invention described above which are missing in the disclosure of Wiedeman, and thus the combination of Wiedeman and Amalfitano stills fails to disclose a method, as stated in claim 1, for evaluating the performance of a customer’s virtual private network (VPN) network access arrangements from an alternate access connection (such as through an ISP) in which the method downloads a test through a network backbone to a network that will produce the VPN for a user to simulate interactions with the VPN and the alternate access connection, tests the data-carrying performance of the VPN with respect to the alternate access connection, compares the test results to benchmarks for the test as run on a different set of access connections (as described in the specification, these benchmarks can be standard leased line connections such as 56Kbit, 512 Kbit and T1 line access), and reports the results of the comparison to providers of the VPN to customers.

Moreover, there is no suggestion of a reason to combine Amalfitano’s disclosure with Wiedeman’s description of a method for testing computer systems with custom configurations. Wiedeman discloses no reason to run a benchmark test on the manufacturer’s testing network, as Wiedeman’s purpose is to test newly manufactured computer systems plugged into burn racks. Amalfitano would suggest only the standard testing of a network for commonplace software applications, and would not solve any problem recognized by Wiedeman. Thus there is no disclosure in either Wiedeman or Amalfitano that would lead a person of skill in the art to combine them, and as noted above, even if combined the resulting disclosure would miss the purpose and result of what applicant has claimed.

The remaining references, cited but not applied in the rejection of any claim, are DeFerranti (U.S. 2003/0191841), McKeown (U.S. 2004/0261116) and Hoffman (U.S.

2003/0018513). These references similarly fail individually, or in combination with one another or with Wiedeman or Amalfitano, to disclose the subject of applicant's claims or to suggest the purpose of applicant's invention, which is stated in the specification as follows (page 2 lines 17-24):

There thus exists a long-felt need in the art for methods of characterizing, evaluating and/or optimizing network access from a variety of sources. These methods should be designed to fully understand the issues of data management and throughput when customers access their VPNs from a variety of access points and technologies. Moreover, the methods should allow the network and service providers to be able to make recommendations to customers concerning the access technology to utilize, and to modify the access technologies and the access to the VPN in order to improve and/or optimize access thereto. Such results have not heretofore been achieved in the art.

The prior art fails to respond to this need with the solution claimed by applicant, and thus the claims should be in condition for allowance.

For the foregoing reasons, reconsideration and allowance of claims 1-14 are respectfully requested.

If there are any matters which a telephone conference might assist in resolving, the examiner is requested to contact applicant's attorney at 203-838-8037.

An associate power of attorney to the undersigned is attached, together with a notification of change of correspondence address.

Respectfully,
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